## **EAST Search History**

| Ref# | Hits | Search Query   | DBs                        | Default<br>Operator | Plurals | Time Stamp          |
|------|------|--|----------------------------|---------------------|---------|---------------------|
| L1   | 1    | "20050058865"  | US-PGPUB;<br>USPAT         | ADJ                 | ON      | 2008/07/12<br>13:21 |
| L2   | 2378 | end adj3 cell and fuel<br>cell   | US-PGPUB;<br>USPAT         | ADJ                 | ON      | 2008/07/12<br>13:28 |
| L3   | 479  | 2 and (gas diffusion layer or gdl)   | US-PGPUB;<br>USPAT         | ADJ                 | ON      | 2008/07/12<br>13:29 |
| L4   | 409  | 3 and (separator or bipolar)   | US-PGPUB;<br>USPAT         | ADJ                 | ON      | 2008/07/12<br>13:29 |
| L5   | 179  | 3 and (separator or bipolar) same end adj3 cell  | US-PGPUB;<br>USPAT         | ADJ                 | ON      | 2008/07/12<br>13:29 |
| L6   | 0    | end adj3 cell and fuel<br>cell and (gas diffusion<br>layer or gdl) and<br>(separator or bipolar)<br>same end adj3 cell | USOCR                      | ADJ                 | ON      | 2008/07/12<br>14:19 |
| L7   | 1    | end adj3 cell and fuel<br>cell and (gas diffusion<br>layer or gdl) and<br>(separator or bipolar)<br>same end adj3 cell | FPRS; EPO;<br>JPO; DERWENT | ADJ                 | ON      | 2008/07/12<br>14:19 |
| L8   | 2    | (gas diffusion layer or<br>gdl) and (separator or<br>bipolar) and (end adj3<br>cell)                                   | FPRS; EPO;<br>JPO; DERWENT | ADJ                 | ON      | 2008/07/12<br>14:20 |
| L9   | 531  | (gas diffusion layer or<br>gdl) and (separator or<br>bipolar)  | FPRS; EPO;<br>JPO; DERWENT | ADJ                 | ON      | 2008/07/12<br>14:20 |
| L10  | 49   | (gas diffusion layer or<br>gdl) and (separator or<br>bipolar) and (end or<br>terminal or last)                         | FPRS; EPO;<br>JPO; DERWENT | ADJ                 | ON      | 2008/07/12<br>14:22 |
| L17  | 14   | ("4020142"  <br>"4316782"  <br>"5595641").PN. OR<br>("5770033").URPN.  | US-PGPUB;<br>USPAT; USOCR  | ADJ                 | ON      | 2008/07/12<br>14:30 |

| L18 | 67    | ("3438136"                              | US-PGPUB;                              | ADJ      | ON | 2008/07/12          |
|-----|-------|---|--|----------|----|---------------------|
| LIO | 07    | "4316782"   "4375395"                   | USPAT; USOCR                           | ADJ      | ON | 14:31               |
|     |       | "4416747"                               | 03FAT, 0300h                           |          |    | 14.51               |
|     |       | "4417969"   "4541989"                   |  |          |    |                     |
|     |       | "4549477"                               |  |          |    |                     |
|     |       | "4759849"   "4792407"                   |  |          |    |                     |
|     |       | "4793932"                               |  |          |    |                     |
|     |       | "4804592"   "4876115"                   |  |          |    |                     |
|     |       | "4933411"                               |  |          |    |                     |
|     |       | "5011699"   "5097556"                   |  |          |    |                     |
|     |       | "5114549"                               |  |          |    |                     |
|     |       | "5120512"   "5181399"                   |  |          |    |                     |
|     |       | "5205927"                               |  |          |    |                     |
|     |       | "5225172"   "5227184"                   |  |          |    |                     |
|     |       | "5242764"                               |  |          |    |                     |
|     |       | "5245845"   "5246792"                   |  |          |    |                     |
|     |       | "5254265"                               |  |          |    |                     |
|     |       | "5266275"   "5269943"                   |  |          |    |                     |
|     |       | "5277868"                               |  |          |    |                     |
|     |       | "5316740"   "5326542"                   |  |          |    |                     |
|     |       | "5328706"                               |  |          |    |                     |
|     |       | "5334355"   "5346669"                   |  |          |    |                     |
|     |       | "5348662"                               |  |          |    |                     |
|     |       | "5385711"   "5403602"                   |  |          |    |                     |
|     |       | "5409616"                               |  |          |    |                     |
|     |       | "5427801"   "5431939"                   |  |          |    |                     |
|     |       | "5433920"                               |  |          |    |                     |
|     |       | "5441622"   "5443801"                   |  |          |    |                     |
|     |       | "5460705"  <br>"5468454"                |  |          |    |                     |
|     |       | "5512263").PN. OR                       |  |          |    |                     |
|     |       | ("5972196").URPN.                       |  |          |    |                     |
|     |       | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | <br>     |    | 0000/07/40          |
| L19 | 60    | "5482792"                               | US-PGPUB;<br>USPAT                     | ADJ      | ON | 2008/07/12<br>14:39 |
| S1  | 15947 | 429/12-46.ccls.                         | US-PGPUB;                              | ADJ      | ON | 2008/07/10          |
| 31  | 13347 | 423/12-40.0018.                         | USPAT                                  | ADJ      | ON | 22:52               |
|     |       |   | §                                      | <u> </u> |    | 3                   |
| S2  | 7712  | S1 and (pemfc or pem                    | US-PGPUB;                              | ADJ      | ON | 2008/07/10          |
|     |       | or (polymer with                        | USPAT                                  |          |    | 22:54               |
|     |       | membrane))                              |  |          |    |                     |
| S3  | 12    | S2 and ((perfom\$4                      | US-PGPUB;                              | ADJ      | ON | 2008/07/10          |
|     |       | with decay) or (stray                   | USPAT                                  |          |    | 22:55               |
|     |       | with current))                          |  |          |    |                     |
| S4  | 494   | S1 and (pemfc or pem                    | US-PGPUB;                              | ADJ      | ON | 2008/07/10          |
|     |       | or (polymer with                        | USPAT                                  |          |    | 23:07               |
|     |       | membrane)) and metal                    |  |          |    |                     |
|     |       | ion                                     |  |          |    |                     |
| S5  | 156   | S1 and (pemfc or pem                    | US-PGPUB;                              | ADJ      | ON | 2008/07/10          |
|     |       | or (polymer with                        | USPAT                                  |          |    | 23:08               |
|     |       | membrane)) and                          |  |          |    |                     |
|     |       | (metal ion same (cool                   |  |          |    |                     |
|     |       | \$4 or water))                          |  |          |    |                     |
| >   |       | · c                                     | :•                                     |          | ₹  | .:•                 |
|     |       |   |  |          |    |                     |

| S6  | 6057 | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate or monoplate or<br>(conducti\$3 adj3 plate)<br>or (terminal adj3 plate)<br>or plate)                  | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/10<br>23:44 |
|-----|------|---|--------------------|-----|----|---------------------|
| S7  | 3119 | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate) same<br>(monoplate or (conducti<br>\$3 adj3 plate) or<br>(terminal adj3 plate) or<br>plate)          | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/10<br>23:45 |
| S8  | 649  | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate) same<br>(monoplate or (conducti<br>\$3 adj3 plate) or<br>(terminal adj3 plate))                      | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/10<br>23:47 |
| S9  | 1649 | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate) same (last or<br>end)  | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>01:17 |
| S10 | 77   | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate) same (last)  | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>01:18 |
| S11 | 1615 | S1 and (pemfc or pem<br>or (polymer with<br>membrane)) and<br>(separator or bipolar or<br>biplate) same (end)   | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>01:24 |
| S12 | 154  | S1 and (pemfc or pem or (polymer with membrane)) and (separator or bipolar or biplate) same (end) same (block\$4 or prevent\$4) with (fluid or cool\$4 or reactant or fuel or oxident or oxygen or air) | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>01:32 |

| S13 | 17362 | (mea or (membrane with assembly) or unit cell) same (endplate or end or plate or conductive or inslulat \$4 or separator or bipolar or biplate or monoplate)   | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:34 |
|-----|-------|--|--------------------|-----|----|---------------------|
| S14 | 6156  | S13 and fuel cell  | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:35 |
| S15 | 4645  | S14 and (cool\$4 or thermal)   | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:35 |
| S16 | 2700  | S15 and ((endplate or end or plate or conductive or inslulat \$4 or separator or bipolar or biplate or monoplate) with (aperture or hole or opening or block\$4 or prevent\$4 or closing))                     | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:36 |
| S17 | 2279  | S15 and ((endplate or end or plate or conductive or inslulat \$4 or separator or bipolar or biplate or monoplate) with (aperture or hole or opening or block\$4 or prevent\$4 or closing)) and 429/12-46.ccls. | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:37 |
| S18 | 2163  | S17 and (ion with<br>membrane or<br>membrane or pem or<br>pemfc)   | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>10:38 |
| S19 | 7448  | (bipolar or separator or biplate) and 429/12-46. ccls.   | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>12:14 |
| S20 | 2475  | (bipolar or separator or<br>biplate) with (passage<br>or pathway or hole or<br>opening or aperture)<br>and 429/12-46.ccls.   | US-PGPUB;<br>USPAT | ADJ | ÖN | 2008/07/11<br>12:15 |
| S21 | 2499  | (bipolar or separator or<br>biplate endplate or<br>monoplate or terminal<br>plate) with (passage or<br>pathway or hole or<br>opening or aperture)<br>and 429/12-46.ccls.                                       | US-PGPUB;<br>USPAT | ADJ | ON | 2008/07/11<br>12:15 |

| S22 | 3875  | (mea or unit cell) same<br>(separator or biplate or<br>bipolar)                                     | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>12:39 |
|-----|-------|---|----------------------------|-----|----|---------------------|
| S23 | 1249  | S22 same (terminal or end)  | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>12:40 |
| S24 | 434   | S23 same insulat\$4   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>12:42 |
| S25 | 197   | (mea or unit cell) same conduct\$4 plate  | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>12:45 |
| S26 | 1214  | 429/35-36.ccls.   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>13:08 |
| S27 | 123   | 429/18.ccls.  | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>13:13 |
| S28 | 32    | fuel cell and (separator<br>or bipolar) same (replac<br>\$4 or remov\$4) same<br>(conduct\$4 plate) | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>13:18 |
| S29 | 13660 | (bipolar or separator)<br>and fuel cell   | FPRS; EPO;<br>JPO; DERWENT | ADJ | ON | 2008/07/11<br>14:47 |
| S30 | 1     | S29 and (stray current)   | FPRS; EPO;<br>JPO; DERWENT | ADJ | ON | 2008/07/11<br>14:47 |
| S31 | 71    | S29 and metal ion   | FPRS; EPO;<br>JPO; DERWENT | ADJ | ON | 2008/07/11<br>14:48 |
| S32 | 1     | "20010018143"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:00 |
| S33 | 1     | "20030211379"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:01 |
| S34 | 10    | "6372372"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:01 |
| S35 | 1     | "20050186462"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:03 |
| S36 | 3     | frame same mesh<br>same (gas diffuision or<br>gdl) and fuel cell                                    | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:04 |
| S37 | 1257  | (blank or dummy) and fuel cell  | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:05 |
| S38 | 234   | (dummy) and fuel cell   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:06 |
| S39 | 198   | (blank same cell) and fuel cell   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>15:06 |
| S40 | 29    | "4332219"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>16:27 |
| S41 | 6     | "6692862"   | US-PGPUB;<br>USPAT         | ADJ | ON | 2008/07/11<br>16:31 |

## 7/12/2008 7:04:01 PM

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